DEER HERD UNIT MANAGEMENT PLAN
Deer Herd Unit #21
Fillmore
April 2006

BOUNDARY DESCRIPTION

Millard, Sevier, Sanpete and Juab counties - Boundary begins at I-70 and I-15; north on I-15 to the Black Rock road; west on the Black Rock road to SR-257; north on SR-257 to US-50 and 6; east on US-50 and 6 to US-6; north on US-6 to SR-132; east on SR-132 to SR-28; south on SR-28 to US-89; south on US-89 to I-70; west on I-70 to I-15.

LAND OWNERSHIP

RANGE AREA AND APPROXIMATE OWNERSHIP

	Year-long range		Summer Range		Winter Range	
Ownership	Area (acres)	%	Area (acres)	%	Area (acres)	%
Forest Service	0	0%	325288	85%	140100	24%
Bureau of Land Management	2995	1%	15470	4%	188601	32%
Utah State Institutional Trust Lands	17	82%	2367	1%	34616	6%
Native American Trust Lands	0	0%	0	0%	1357	0%
Private	662	18%	40623	11%	202590	35%
Department of Defense	0	0%	0	0%	0	0%
USFWS Refuge	0	0%	0	0%	0	0%
National Parks	0	0%	0	0%	0	0%
Utah State Parks	0	0%	0	0%	0	0%
Utah Division of Wildlife Resources	0	0%	119	0%	14977	3%
TOTAL	3674	100%	383867	100%	582241	100%

UNIT MANAGEMENT GOALS

Manage for a population of healthy animals capable of providing a broad range of recreational opportunities, including hunting and viewing. Balance deer herd impacts with human needs, such as private property rights, agricultural crops and local economies. Maintain the population at a level that is within the long-term capability of the available habitat to support.

POPULATION MANAGEMENT OBJECTIVES

< Target Winter Herd Size - Achieve a target population size of 12,000 (2,000 on 21A, and 10,000 on 21B)) wintering deer (modeled number). These population objectives are short term, spanning the 5year life of this plan. Long term population objectives remain at 2,500 deer on subunit 21A and 10,000 deer on subunit 21B.

	Unit 21	Subunit 21A	Subunit 21B
2003 Objective:	12,500	2,500	10,000
2006-2011 Objective:	12,000	2,000	10,000
Change since 2003:	-500	-500	0

The change in subunit 21A management objective represents a 20% reduction based upon poor range trend survey values (see Habitat Management Objectives section below).

< Herd Composition – Region-wide three-year average post-season ratios ranging from 15-20 bucks per 100 does will be maintained on the portion of Unit 21 managed for general season hunting. On the Oak Creek Limited Entry portion of the unit (Sub-unit 21A), the herd will be managed for three-year average post-season ratios ranging from 25-35 bucks per 100 does.

POPULATION MANAGEMENT STRATEGIES

Monitoring

< Population Size - Herd composition and population size will be monitored through post season and spring classification, hunter check stations, harvest surveys and computer modeling.

< Buck Age Structure - Monitor age class structure of the buck population through the use of checking stations, postseason classification, uniform harvest surveys and field bag checks.

< Harvest - The primary means of monitoring harvest will be through the statewide uniform harvest survey. Achieve the target population size by use of antlerless harvest using a variety of harvest methods and seasons. Buck harvest strategies will be developed through the RAC and Wildlife Board process to achieve management objectives for buck:doe ratios.

Limiting Factors (May prevent achieving management objectives)

< Crop Depredation - Take all steps necessary to minimize depredation as prescribed by state law and DWR policy.

< Habitat - Monitor DWR lands in Millard County. Protect newly reseeded areas. Excessive habitat utilization will be addressed.

< Predation - Refer to DWR predator management policy.

- Assess need for control by species, geographic area and season of year.

- Seek assistance from USDA/Wildlife Services when deer populations are depressed and where there is a reasonable chance of gaining some relief through a predator control effort. Concentrate USDA/Wildlife Services control efforts during and immediately prior to the fawning period.

- Recommend cougar harvest to benefit deer while maintaining the cougar as a valued resource in its own right.

< Highway Mortality - Work with UDOT to have deer proof fence from Holden to Fillmore and along I-70.

< Illegal Harvest - Specific preventive measures will be implemented through Action Plans developed in cooperation with the Law Enforcement section should illegal kill become an identified and significant source of mortality.

< Interspecific competition - No limitation generated by elk/deer interactions has been documented.

HABITAT MANAGEMENT OBJECTIVES

< Maintain and/or enhance forage production through direct range improvements throughout the unit on winter range to achieve population management objectives.

< Work with private and federal agencies to maintain and protect critical and existing winter range from future losses.

< Provide improved habitat security and escapement opportunities for deer.

Condition of deer winter range on Unit 21B, as indicated by DWR range trend surveys.

Year	Mean DCI score for Unit	Classification	Unit-specific DCI score range: Poor	Unit-specific DCI score range: Fair	Unit-specific DCI score range: Good
1998	38.64	FAIR	21-35	36-53	54-71
2003	41.94	FAIR			

Condition of deer winter range on Unit 21A, as indicated by DWR range trend surveys.

Year	Mean DCI score for Unit	Classification	Unit-specific DCI score range: Poor	Unit-specific DCI score range: Fair	Unit-specific DCI score range: Good
1998	20.03	POOR	21-35	36-53	54-71
2003	18.70	VERY POOR			

HABITAT MANAGEMENT STRATEGIES

< Continue to monitor the permanent range trend studies located throughout the seasonal ranges.

< Manage vehicle access on Division of Wildlife Resources land to limit human disturbance during times of high stress, such as winter and fawning.

< With the use of land exchange, block Division of Wildlife properties on this deer unit.

PERMANENT RANGE TREND SUMMARIES

Unit 21-Fillmore

Fourteen (14) permanent range trend study transects are located on the Fillmore unit, 11 of which monitor deer winter range. The remaining 3 were established on sensitive areas on the Pahvant Mountains that are used by deer and elk during summer. Transects were established in 1985 and are read at five-year intervals with the most recent data collected in 2003. Based upon the 2003 data, soil erosion has not been a problem on most sites across the unit. The

herbaceous under story is also relatively stable, although perennial forbs are lacking. The majority of the winter browse on this unit is provided by cliffrose, bitterbrush and big sagebrush. The 2003 study rated browse as decreasing on 6 sites, stable on 4, and improving on 1 location. Browsing by deer was moderate-to-heavy on many sites and the average deer use on winter range studies across the unit increased from 86 deer days per acre in 1998 to 108 deer days per acre in 2003. It is interesting to note that even though precipitation was below average between 1998 and 2003 the average DCI actually increased.

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CONDITION INDEX (DCI) OF WINTER RANGE TREND STUDY SITES DEER UNIT 21 (FILLMORE)			
Study Site	**Type**	**1998**	**2003**
M Hill	MB	60.88	51.92
Bennet Field	T	20.59	40.33
Smith's Ridge	V	59.16	44.77
Wide Canyon BLM	W	34.03	41.96
Wide Canyon DWR	W	45.97	53.55
Dog Valley	MB	-15.05	-4.77
Dameron	V	39.77	62.24
Walker Creek	T	26.69	48.73
Meadow Creek	V	52.51	21.44
East Cemetery	V	49.08	42.24
Baker Canyon	W	51.41	58.92
Unit Average		**38.64**	**41.94**

Sub-unit 21A-Fillmore Oak Creek Limited Entry

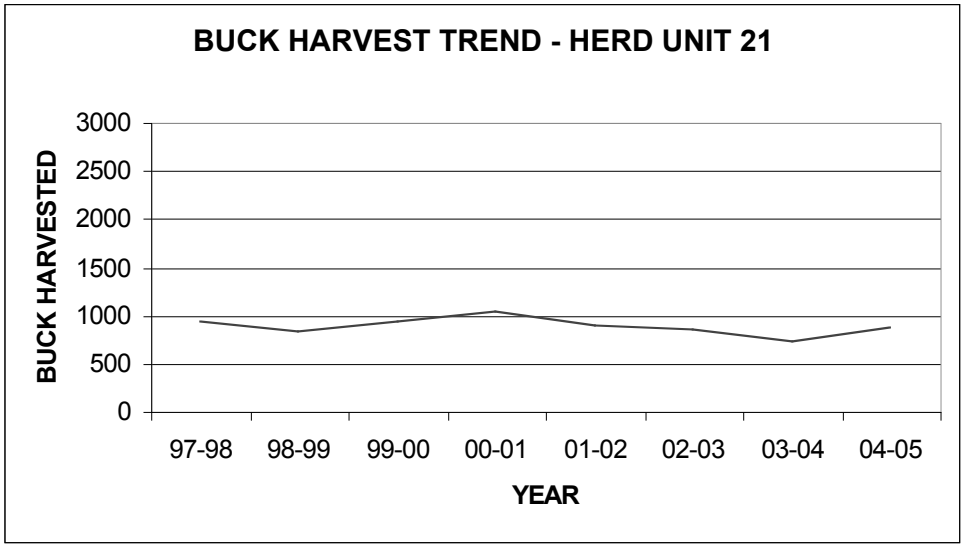
Four (4) transects are used to monitor winter range trend on the Oak Creek limited entry sub-unit. All are situated along the west slope of the Canyon Mountains. Soil and herbaceous understory are relatively stable across all sites. Wildfires have been frequent on this sub-unit and have reduced the density of browse species. Average deer use on winter range study sites across the unit decreased from 9 deer days per acre in 1998 to 3.5 deer days per acres in 2003. Many deer also have been wintering on alfalfa stubble growing in fields northeast of Oak City. The reliance of deer on these agricultural areas close to Oak City and the expansion of the town onto winter range have increased deer-human conflicts and there are problems with deer moving into town during the winter and damaging fruit trees and ornamental shrubs.

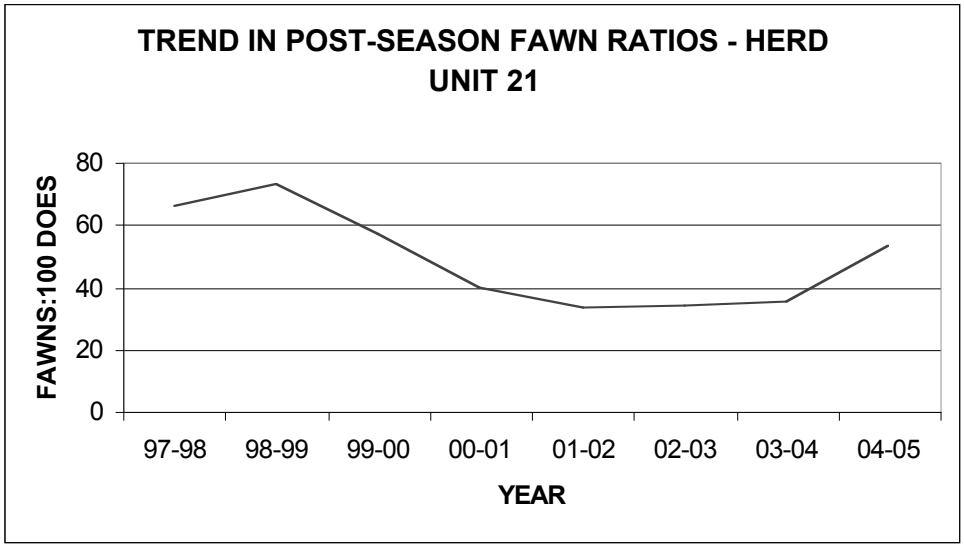
CONDITION INDEX (DCI) OF WINTER RANGE TREND STUDY SITES DEER UNIT 21A (OAK CREEK LIMITED ENTRY)			
Study Site	**Type**	**1998**	**2003**
Long Canyon	MB	42.78	38.34
Lovell Hollow	DES	1.72	-4.89
Cascade Spring	W	26.19	26.06
Horse Hollow	W	9.44	15.30
Sub-unit Average		20.03	18.70

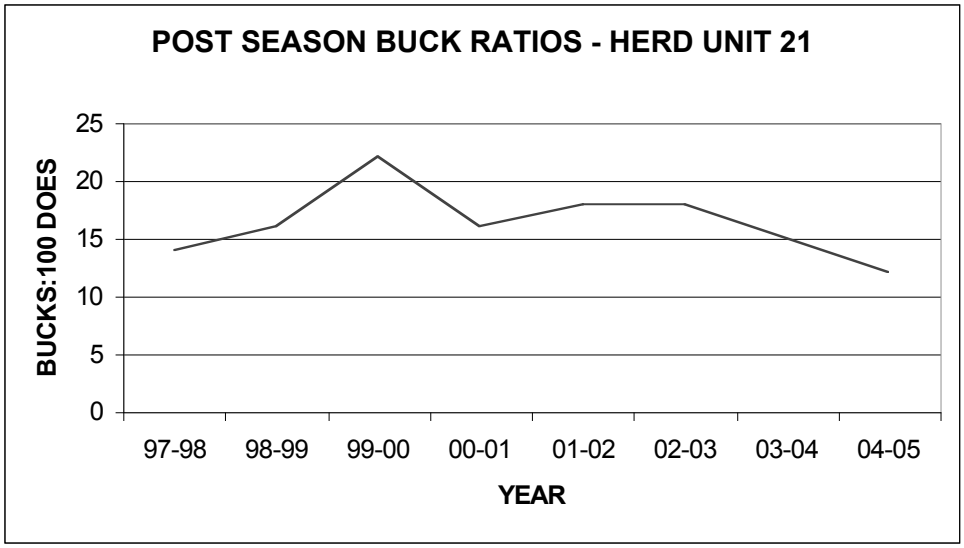
Duration of Plan

This unit management plan was approved by the Wildlife Board on _____ and will be in effect for five years from that date, or until amended.

APPENDIX – HARVEST AND CLASSIFICATION DATA






POST SEASON BUCK RATIOS - HERD UNIT 21
BUCKS:100 DOES
25
20
15
10
5
0
97-98
98-99
99-00
00-01
01-02
02-03
03-04
04-05
YEAR